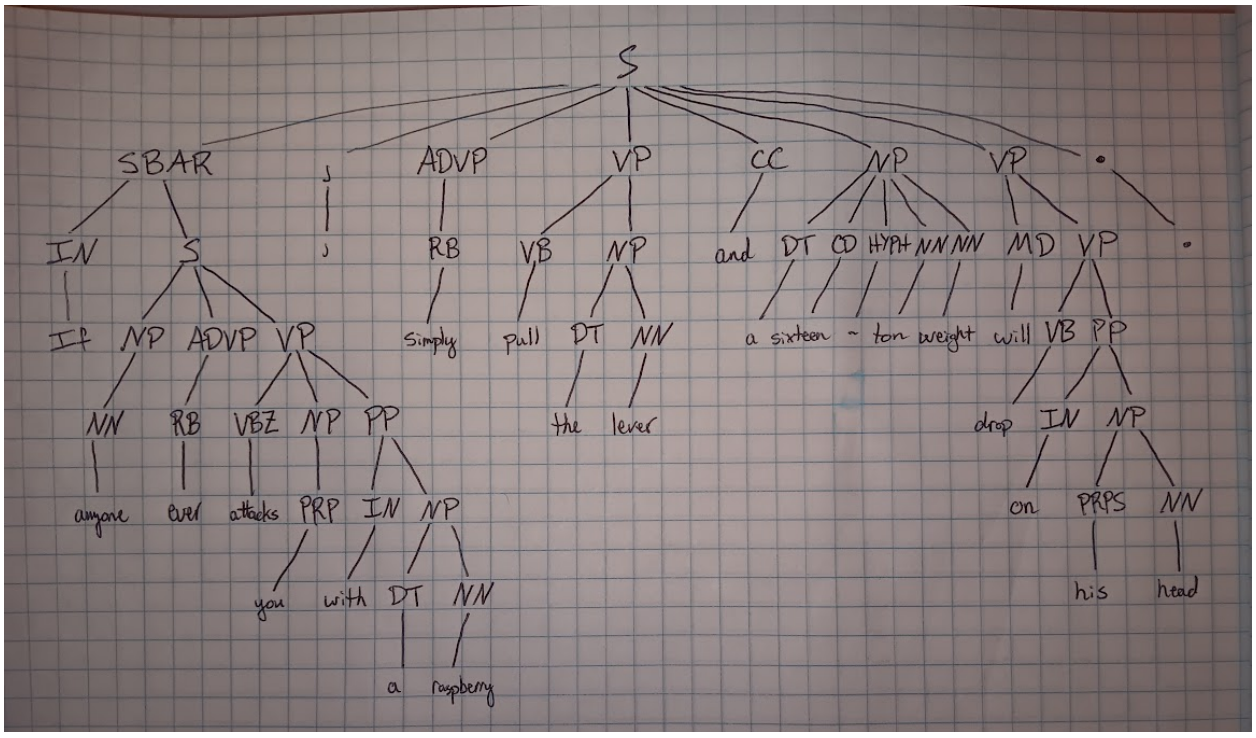
Thomas Bennett - trb090020
CS 4395.001 - UTD Spring ‘23
Sentence Parsing

Sentence Parsing: *Self-Defence* by Monty Python

Original sentence: *If anyone ever attacks you with a raspberry, simply pull the lever...and a sixteen-ton weight will drop on his head.*

Simplified version: *If anyone ever attacks you with a raspberry, simply pull the lever and a sixteen-ton weight will drop on his head.*
Source

PSG Tree



Definitions

S: Sentence
SBAR: Clause introduced by a subordinating conjunction
ADVP: Adverb Phrase
VP: Verb Phrase
CC: Coordinating conjunction
NP: Noun Phrase
IN: Preposition or subordinating conjunction

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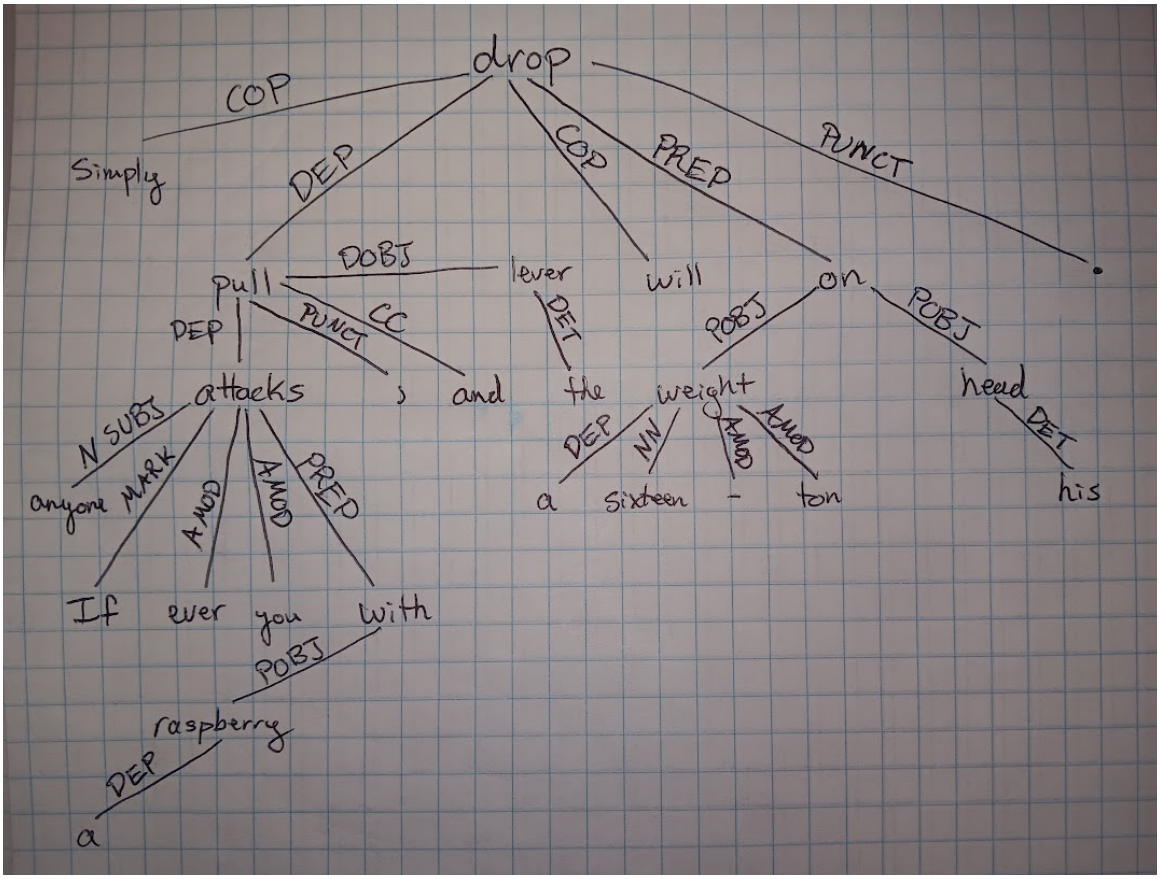
RB: Adverb
VB: Verb, base form
DT: Determiner
CD: Cardinal number
HYPH: Hyphen
NN: Noun, singular or mass
MD: Modal
PP: Prepositional phrase
VBZ: Verb, third person singular present
PRP: Personal pronoun
PRPS: Possessive pronoun
. : Period
, : Comma
[Source]

Dependency Parse



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Definitions

COP: Copula - the relation between the complement of a copular verb and the copular verb
DEP: Unspecified dependency
PREP: Prepositional modifier - modifies the meaning of a verb, adjective, or noun
PUNCT: Punctuation
DOBJ: Direct Object - the recipient of the action of a verb
DET: Determiner - relation between the head of a noun phrase and its determiner
POBJ: Object of a preposition - head of a noun phrase following the preposition; the adverbs “here” and “there”
CC: Coordination - relation between an element of a conjunct and the coordinating conjunction word of the conjunct
NSUBJ: Nominal subject - a noun phrase which is the syntactic subject of a clause
MARK: Marker - the word introducing an adverbial clausal complement
AMOD: Adjectival modifier - modifies the meaning of a noun phrase
NN: Noun compound modifier - modifies the head noun of a noun phrase
Source

SRL Parse

Predicate	Arguments	Modifiers
attacks	**ARG0:** anyone **ARG1:** you	**TMP:** ever **MNR:** with a raspberry
pull	**ARG1:** the lever	**ADV:** If anyone ever attacks you with a raspberry **ADV:** simply
will		
drop	**ARG1:** a sixteen-ton weight **ARG4:** on his head	**MOD:** will

Definitions

Arguments

ARG0: actor or agent of the sentence doing the action.
- In the sentence, ‘anyone’ is doing the attacking.

ARG1: passive actor.
- ‘You’ is the thing being attacked.
- ‘The lever’ is the thing being pulled.
- ‘A sixteen-ton weight’ is the thing being dropped.

ARG4: the end point, or end state of arg1.

- ‘On his head’ is the end state of ‘a sixteen-ton weight.’

Modifiers

TMP: when?

- ‘Ever’ is when you should pull the lever.

MNR: how?

- ‘With a raspberry’ is how you are being attacked.

ADV: miscellaneous

- ‘If anyone ever attacks you with a raspberry’ is when you should pull.
- ‘Simply’ is how you should pull.

MOD: modal [example: The vase very easily *could* have fallen]

- The sixteen ton weight *will* drop.

Source
Source for modal

My Opinion

The PSG parse tree seemed to be the most natural way of parsing the sentence. The sequence of tokens is retained in the leaves of the PSG tree. However, it takes the knowledge of a linguist to understand the meaning of the branches of the PSG tree. The dependency parse was less intuitive and was more difficult to draw by hand. However, the relations described by the dependency parse give better understanding than the constituency parse as to how the parts of the sentence work together. The SRL parse produced some curious results, like the two ADV modifiers which probably should have been TMP and MNR modifiers. The SRL parse does a good job of describing the active and passive actors in the sentence.